Leuze electronic
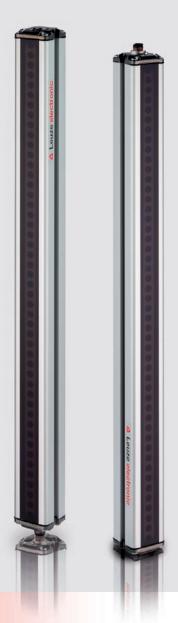
the sensor people
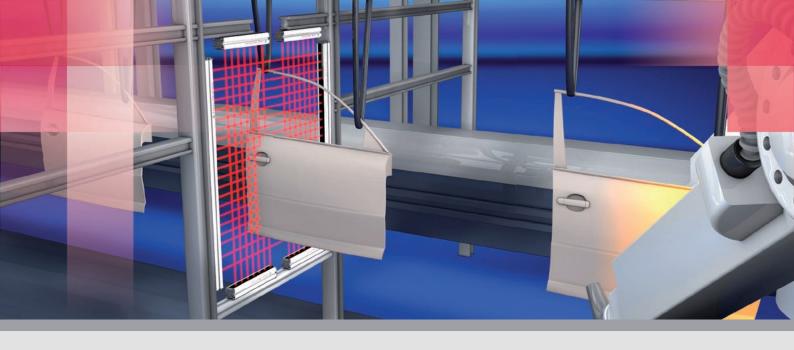
KONTUR*flex*
Measuring Light Curtains

The measuring light curtain:
KONTUR*flex* with field bus adaptation.

Adaptable, flexible, reliable.

KONTUR*flex*, one of the fastest measuring light curtains available is equipped for nearly every kind of measurement task. Length, width or – height measurement, positioning, hole detection or multi-dimensional contour detection – no problem at all for KONTUR*flex* from Leuze. With the easy-to-use Windows operator software the KONTUR*flex* can be quickly and easily adapted to the task on hand. The transmitter and receiver pair is available in 5, 10, 20 and 40 mm resolution and lengths up to 3200 mm. The QUATTRO control unit enables connection of up to 4 pairs, assumes the measurement value settings, such as max/min value, and transfers the measurement data via Profibus, Modbus or CANopen interface to the processing control unit.

Ideal areas of application

- In conveyor belt and storage system technology as height controls, six-pack and pallet position alignment

- In process automation in powder coating and painting systems

- In packaging systems as cardboard box storage controls and cardboard box stacking controls

- In the paper processing industry as condition control for finding tears and damaging, stacking controls

Your benefits

- High range of usability with single beam evaluation or integrated evaluation functions

- Plug'n'Play use for packaging industry requirements with integrated functions for track and hole detection

- Easy adaption to changed requirements with the use of configuration software for measurement functions, sensitivity and time response via PC with diagnostics tools

- Low influence level with environmental parameters with the aid of centrally controlled components of up to 4 light strip pairs

Unbeatable advantages

- Various beam distances
  5 mm, 10 mm, 20 mm and 40 mm

- Wide range of measurement lengths
  80 mm to max. 3200 mm

- Up to 4 light curtains per control device, no reciprocal influencing

- Top scanrate with speed of 50µs per beam

- Diverse measurement data functions (max, min, tracking functions, hole detection, blanking etc.)

- Solid aluminum profile

- Serial interface

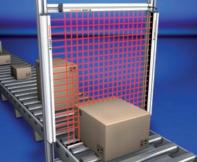- Compatible with Profibus, Modbus and CANopen

- Single beam data evaluation

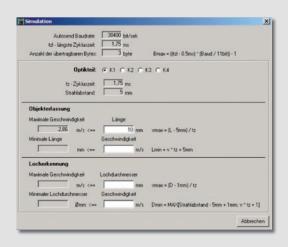| Position finding	Object measurement	Object detection	Height detection

KONTUR*flex*soft parameterization software

The KONTURflex measuring light curtain can also be configured via the accompanying „KONTUR*flex*soft" software or directly via the connected control unit. What data will be transferred can therefore be defined here (highest/lowest interrupter beam, number of free or interrupted beams, etc.).

These settings are stored in the QUATTRO's non-volatile storage space.

Function modes
- Automatic detection of the connected light strips (number of light strips and number of beams)
- Serial single beam data transfer
- Blanking function
- Hole detection
- Tracking function for centering control
- Programmable status output
- Simulation mode
- Automatic or controlled data transfer

Configuration
- Communication interface
- Signal output (function, H/L active)
- Light strip parameters, blanking

Interfaces
- Configuration of QUATTRO control unit – PC via RS232
- System interface:
  1 configurable switching output
  - RSX: RS485 direct or with Modbus protocol
  - DP: RS485 with Profibus protocol
  - CANopen: RS485 with CANopen protocol

QUATTRO control unit

Up to 4 light curtains can be connected to the QUATTRO control unit. It can be configured via an RS232 interface with a PC program or direct via a PLC. The configuration can be stored permanently in the QUATTRO so that it is also retained after being switched off. It is available in the versions: QUATTRO-DP for Profibus connection, QUATTRO-CANopen for CANopen connection and QUATTRO-RSX for data transfer in acc. with the Modbus protocol.

The QUATTRO control unit enables the selection of various operating modes:
- Autosend mode
- Controlled data transfer
- Free reading and writing of all registers
- Fixed configuration (without communication to PLC)

Technical data.

Light curtain	
Measuring field height	80 – 3200 mm
Max. number of beams	512 (per control unit)
Beam distance	5 / 10 / 20 / 40 mm
Curtain spacing	Range up to 4 m
Response time	50 µs / beam -- (number of light beams +3) x 50 µs
Optical wavelength	Infrared - wavelength 950 nm
Connection	M12 plug connection
Protection rating	IP65
Operating temperature	0 °C up to 55 °C
Housing	Aluminium profiles
Profile dimensions (W x D)	40 mm x 40 mm

Control unit:	
Operating voltage	24VDC ± 20%
Connectable light curtains	Max. 4 systems with a total of max. 512 beams
Connection --> light curtains	M12 plug connection (5-pin, max. 20 m)
Interface	RS485 -- PROFIBUS-DP (opto-coupler), CANopen, MODBus
Configuration interface	RS232
Signal output	PNP
Housing	Plastic (Fieldbushousing)
Dimensions (W x L x H)	60 mm x 180 mm x 40 mm

Optoelectronic Sensors

Cubic Series
Cylindrical Sensors, Mini Sensors, Fibre Optic Amplifiers
Measuring Sensors
Special Sensors
Light Curtains
Forked Sensors
Double Sheet Monitoring, Splice Detection
Accessories

Identification Systems
Data Transmission Systems
Distance Measurement

Barcode Readers
RF-IDent-System
Modular Interfacing Units
Industrial Image Processing Systems
Optical Data Transmission Systems
Optical Distance Measurement/Positioning
Hand-Held Readers

Safety Sensors
Safety Systems
Safety Services

Safety Laser Scanners
Safety Light Curtains
Transceiver and Multiple Light Beam Safety Devices
Single-Beam Safety Devices
AS-i-Safety Product Range
Safety Sensor Technology for PROFIBUS DP
Safety Switches and Safety Locking Devices
Safety Relays and Safety Interfaces
Sensor Accessories and Signal Devices
Machine Safety Services